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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/783,475

02/20/2004

Kuo-Tong Ma

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7590

02/24/2006

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EXAMINER

UHLENHAKE, JASON S

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/783,475	MA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jason Uhlenhake	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/28/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 6, 10, 12, 15, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hobson et al (U.S. Pat. 6,199,979).

#### ***Hobson et al discloses:***

- ***regarding claim 1***, method for filling an ink into an ink cartridge comprising: treating a filter with a surfactant to increase the hydrophilicity of the filter, wherein the filter has pores (Column 8, Lines 1 – 10)
- installing the treated filter in an ink cartridge ; filling an ink into the ink cartridge to pass through the treated filter (Column 3, Lines 14 – 24)
- ***regarding claim 3 and claim 12***, wherein the filter is a fiber filter, nylon filter, foamed filter or metal filter (Column 9, Lines 1 – 15)
- ***regarding claim 6 and claim 15,,*** wherein the surfactant is used singly (Column 8, Lines 1 – 10)
- ***regarding claim 10***, method for filling an ink into an ink cartridge comprising: installing a filter in an ink cartridge, wherein the filter has pores (Column 3, Lines 14 – 24)

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- treating the filter with a surfactant to increase the hydrophilicity of the filter  
(Column 8, Lines 1 – 10)
- filling an ink into the ink cartridge to pass through the treated filter (Column 3, Lines 14 – 24)

Claim 19 is rejected under 35 U.S.C. 102(b) as being anticipated by Hirose et al (U.S. Pat. 6,120,140).

***Hirose et al discloses:***

- ***regarding claim 19***, method for filling an ink into an ink cartridge comprising: providing an ink cartridge having an ink passage, wherein the ink passage has a wall (Column 11, Lines 28 – 45)
  - treating the wall of the ink passage with a surfactant to increase the hydrophilicity of the wall of the ink passage (Column 11, Lines 28 – 45)
  - filling an ink into the ink cartridge to pass through the treated ink passage (Column 8, Lines 1 - 7)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hobson et al (U.S. Pat. 6,199,979) in view of Kitahara (U.S. Pat. 6,190,009).

***Hobson et al discloses all of the claimed limitations except for the following:***

- ***regarding claim 2 and claim 11***, wherein when the ink is filled into the ink cartridge, the pore of the filter and the ink surface are at an angle less than 90 degrees

***Kitahara discloses:***

- ***regarding claim 2 and claim 11***, wherein when the ink is filled into the ink cartridge, the pore of the filter and the ink surface are at an angle less than 90 degrees (Column 2, Lines 66 – 67; Column 3, Lines 1 – 10)

At the time the invention was made it, would have been obvious to a person of ordinary skill in the art to incorporate the teaching of ink is filled into the ink cartridge, the pore of the filter and the ink surface are at an angle less than 90 degrees as taught by Kitahara into the device of Hobson et al. The motivation for doing so would have been to easily allow air bubbles to pass through the filter member and proceed downstream.

Claims 4, 5, 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hobson et al (U.S. Pat. 6,199,979) in view of Engel et al (U.S. Pat. 6,926,957).

***Hobson et al discloses all of the claimed limitations except for the following:***

- ***regarding claims 4, 13***, wherein the surfactant has an HLB value of 3 to 18

- **regarding claims 5, 14**, wherein the surfactant has an HLB value of 6 to 15

***Engel et al discloses the following:***

- **regarding claims 4, 13**, wherein the surfactant has an HLB value of 3 to 18  
(Column 7, Lines 19 – 23)
- **regarding claims 5, 14**, wherein the surfactant has an HLB value of 6 to 15  
(Column 7, Lines 19 – 23)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of surfactant has an HLB value of 3 to 18 ; surfactant has an HLB value of 6 to 15 as taught by Engel et al into the device of Hobson et al. The motivation for doing so would have been to improve the coatability of the film.

Claims 7, 8, 16, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hobson et al (U.S. Pat. 6,199,979) in view of Hayashi et al (U.S. Pub 2001/0035897).

***Hobson et al discloses all of the claimed limitations except for the following:***

- **regarding claim 7 and claim 16**, wherein the surfactant is dissolved in a solvent when used
- **regarding claim 8 and claim 17**, wherein the solvent is water or a hydrophilic solvent

***Hayashi et al discloses the following:***

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- **regarding claim 7 and claim 16**, wherein the surfactant is dissolved in a solvent when used (Paragraph 0290)
- **regarding claim 8 and claim 17**, wherein the solvent is water or a hydrophilic solvent (Paragraph 0290)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of surfactant is dissolved in a solvent when used; the solvent is water or a hydrophilic solvent as taught by Hayashi et al into the device of Hobson et al. The motivation for doing so would have been to effect the movement of ink smoothly within a liquid flow path.

Claims 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hobson et al (U.S. Pat. 6,199,979) as modified by Hayashi et al (U.S. Pub 2001/0035897) as applied to claim 1 above, and further in view of Reem et al (U.S. Pub. 2004/0094065)

***Hobson et al as modified by Hayashi et al discloses all of the claimed limitations except for the following:***

- **regarding claim 9 and claim 18**, wherein the surfactant is present in an amount of 0.0001 to 10 weight %

***Reem et al discloses the following:***

- **regarding claim 9 and claim 18**, wherein the surfactant is present in an amount of 0.0001 to 10 weight % (Paragraph 0053)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of the surfactant is present in an amount of 0.0001 to 10 weight % as taught by Reem et al into the device of Hobson et al as modified by Hayashi et al. The motivation for doing so would have been to reduce the gloss value of the printed image.

Claims 20, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose et al (U.S. Pat. 6,120,140) in view of Engel et al (U.S. Pat. 6,926,957).

***Hirose et al discloses all of the claimed limitations except for the following:***

- ***regarding claims 20***, wherein the surfactant has an HLB value of 3 to 18
- ***regarding claims 21***, wherein the surfactant has an HLB value of 6 to 15

***Engel et al discloses the following:***

- ***regarding claims 20***, wherein the surfactant has an HLB value of 3 to 18  
(Column 7, Lines 19 – 23)
- ***regarding claims 21***, wherein the surfactant has an HLB value of 6 to 15  
(Column 7, Lines 19 – 23)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of surfactant has an HLB value of 3 to 18 ; surfactant has an HLB value of 6 to 15 as taught by Engel et al into the device of Hirose et al. The motivation for doing so would have been to improve the coatability of the film.



**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Uhlenhake whose telephone number is (571) 272-5916. The examiner can normally be reached on Monday - Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JSU

February 7, 2006

  
K. FIGGINS  
PRIMARY EXAMINER